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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants

Sherie L. Morrison, et al.

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Serial No.

08/266,154

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June 27, 1994

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RECEPTORS BY DNA SPLICING

AND EXPRESSION

Art Unit

1806

Examiner

Julie E. Reeves, Ph.D.

August 28, 1997

Hon. Commissioner of Patents and Trademarks Washington, D.C. 20231

## SUPPLEMENTAL AMENDMENT

Sir:

In accordance with the telephone interviews with the Examiner on August

21 and August 25, 1997, kindly amend the pending claims as follows:

78. (Twice amended) A method for producing a functional antibody

comprising a heavy chain and a light chain, which comprises the steps of:

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(a) transfecting a non-antibody producing mammalian lymphoid cell with a first DNA [sequence] molecule coding for a first chain of the antibody;

(b) transfecting the cell with a second DNA [sequence] molecule, said second DNA [sequence] molecule coding for a second chain of the antibody, said second chain being a chain other than the first chain and said first and second chains being either the heavy chain or the light chain; and

- (c) maintaining the cell in a nutrient medium, so that the cell expresses the first and second DNA [sequences] molecules and the resultant chains are intracellularly assembled together to form the antibody which is then secreted in a form capable of specifically binding to antigen.
- 82. (Twice Amended) A method as recited in claim 78 wherein the cell endogenously produces an immunoglobulin light chain or an immunoglobulin heavy chain, which endogenously-produced heavy chain is not secreted in a form capable of specifically binding to antigen, but not both[ and wherein the heavy chain is not secreted in a form capable of specifically binding to antigen].
- 83. (Twice Amended) A method as recited in claim 78 wherein the antibody comprises [a] the variable region found in a first mammalian [source] species and comprises [a] the constant region found in a second mammalian [source] species, said second mammalian [source] species being [from a mammalian species] other than [that of] the first mammalian [source] species.

84. (Twice Amended) A method for producing a functional antibody comprising a heavy chain and a light chain, which comprises the steps of:

- (a) transfecting a non-antibody producing mammalian lymphoid cell with a plasmid comprising a first DNA [sequence] molecule coding for a first chain of the antibody and a second DNA [sequence] molecule coding for a second chain of the antibody, said second chain being a chain other than the first chain and said first and second chains being either the heavy chain or the light chain; and
- (b) maintaining the cell in a nutrient medium so that the cell expresses said first DNA [sequence] molecule and said second DNA [sequence] molecule and the resultant chains are intracellularly assembled together to form the antibody which is then secreted in a form capable of specifically binding to antigen.
- endogenously produces an immunoglobulin light chain or an immunoglobulin heavy chain, which endogenously-produced heavy chain is not secreted in a form capable of specifically binding to antigen, but not both[ and wherein the heavy chain is not secreted in a form capable of specifically binding to antigen].
- 89. (Twice Amended) A method as recited in claim 84 wherein the antibody comprises [a] the variable region found in a first mammalian [source] species and comprises [a] the constant region found in a second mammalian [source] species, said second mammalian [source] species being [from a mammalian species] other than [that of] the first mammalian [source] species.

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90. (Twice Amended) A method for producing a functional antibody comprising a heavy chain and a light chain which comprises the steps of:

(a) maintaining in a nutrient medium a non-endogenous antibody producing mammalian lymphoid cell, said cell having been transfected with a first DNA [sequence] molecule coding for a first chain of the antibody and a second DNA [sequence] molecule coding for a second chain of the antibody, said second chain being a chain other than the first chain and said first and second chains being either the heavy chain or the light chain;

- (b) expressing from said cell the heavy chain and the light chain functionally assembled together to form said antibody which is then secreted in a form capable of binding antigen; and
  - (c) recovering said antibody.
- 94. (Twice Amended) A method as recited in claim 90 wherein the cell endogenously produces an immunoglobulin light chain or an immunoglobulin heavy chain, which endogenously-produced heavy chain is not secreted in a form capable of specifically binding to antigen, but not both[ and wherein the heavy chain is not secreted in a form capable of specifically binding to antigen].
- 95. (Twice Amended) A method as recited in claim 90 wherein the antibody comprises [a] the variable region found in a first mammalian source and comprises [a] the constant region found in a second mammalian [source] species, said

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second mammalian [source] species being [from a mammalian species] other than [that of] the first mammalian [source] species.

## **REMARKS**

Applicants have amended the claims as agreed with the Examiner during the telephone interviews. Also as agreed, for the convenience of the Examiner, applicants will promptly file a second supplemental amendment cancelling all pending claims and submitting newly numbered claims identical in content.

Applicants believe that the pending claims are now in condition for allowance. Entry of the present amendment and allowance of the claims are requested.

If the Examiner has any questions concerning this application, applicants request that the Examiner telephone the undersigned attorney at (415) 617-4011.

Respectfully submitted,

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FROM: Vicki S. Veenker	<b>SENDER'S DIRECT LINE:</b> (650) 617-4011	
RE: Sherie L. Morrison, et al.	00378.001	
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Attached is applicants' Supplemental Amendment.		

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